

Patent Claims

1. Ring binder mechanism with a housing (10) having a C- or U-shaped cross-section with spring-elastic bendable flanks (28) for two carrier rails (20), which carrier rails on their inward facing longitudinal edges lie against each other forming a linkage axis (22) and with their outward facing longitudinal edges (24) engage in mounting grooves (26) in the housing flanks (28), and with at least two half-rings (16) longitudinally spaced apart from each other and rigidly connected with the carrier rails (20), which half-rings extend through openings (12) in a housing wall (13) and pairwise form a ring (14), wherein the carrier rails (20) are limitedly pivotable relative to each other about the linkage axis (22) between an open position and a closed position upon overcoming the spring force produced by the bending open of the housing flanks (28), while taking along the half-rings (16), and wherein at least two locking elements (32) are provided to be operable via an actuating element (18) and a tie rod (44) which locking elements, in the closed position, protrude into a free space (34) formed between the carrier rails (20) and the housing wall (13) blocking the pivot movement of the carrier rails (20) and, in the open position, free the pivot movement of the carrier rails (20) about the linkage axis (22), wherein the locking elements (32) are pre-tensioned in the direction of the closed position under the influence of a closing spring (36), thereby characterized,

that the tie rod (44) includes a number of engaging elements, preferably dogs (210), each of which respectively being associated with one of the locking elements (32).

2. Ring binder mechanism according to claim 1, thereby characterized, that the tie rod (44) is a piece of wire extending essentially parallel to the linkage axis.
3. Ring binder mechanism according to claim 1 or 2, thereby characterized, that the dogs (201) are bends or offsets (202) on the tie rod (44).
4. Ring binder mechanism according to one of claims 1 through 3, thereby characterized, that each ring element (32) is provided with its own locking spring (36) independent of the tie rod (44).
5. Ring binder mechanism according to claim 4, thereby characterized, that the locking springs (36) are leg springs.
6. Ring binder mechanism according to one of claims 1 through 3, thereby characterized, that only one locking spring (36) is provided, namely engaging the end of the tie rod (44) opposite to the actuating element (18).
7. Ring binder mechanism according to claims 1 through 6, thereby characterized, that each locking element (32)

includes a receptacle (203) for the corresponding dog (201) of the tie rod (44) and is in operative association therewith.

8. Ring binder mechanism according to claims 1 through 7, thereby characterized, that at least one of the locking elements (32) is a pivot element.
9. Ring binder mechanism according to claim 8, thereby characterized, that at least one locking element (32) is held pivotably on one of the two carrier rails (20) and/or on the housing (10).
10. Binder with a ring binder mechanism according to one of claims 1 through 9.